

**Notice of Allowability**

Application No.

10/037,870

Examiner

Cicely Ware

Applicant(s)

BOOTH ET AL.

Art Unit

2634

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 10/25/2005.
2. ☒ The allowed claim(s) is/are 1-17, 19-21, 26 and 27 renumbered as 1-22 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>1</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                  |
|   | 9. <input type="checkbox"/> Other _____   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Davis Gilmer on 1/12/2005:

**I. Listing of Claims:**

- a. Cancel Claim 18.
- b. Claim 8, line 2, delete "a function", insert "said function".
- c. Claim 1, line 3, delete ",", insert ", the communication signal using constellation points,".
- d. Claim 1, line 11, delete ",", insert ", the two or more signal sample points lying in between two constellation points,".
- e. Claim 15, line 3, delete ",", insert ", the communication signal using constellation points,".
- f. Claim 15, line 9, delete ",", insert ", the two samples lying in between two constellation points,".
- g. Claim 26, lines 4, delete ",", insert ", the communication signal comprising a plurality of constellation points, said two signal samples lying between two constellation points,".

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h. Claim 27, line 3, delete ":", insert ", the communication signal associated with at least two constellation points, the at least two samples lying between two constellation points;".

A handwritten signature in black ink, appearing to read "Chieh M. Fan" with a stylized flourish at the end.

CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER

### REASONS FOR ALLOWANCE

1. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a method of altering a communications signal to reduce an average-to-minimum power ratio. Prior art references (O'Dea et al. US Patent 5,805,640) show similar methods but fail to teach: **"identifying two or more signal samples points between which a communications signal is likely to reach a local envelope minimum, the two or more signal sample points lie in between two constellation points"**, as in claims 1, 15; **"assigning mathematical coordinates to two signal samples of a communications signal, two signal sample points lying between 2 constellation points; calculating a minimum magnitude of the communications signal using the mathematical coordinates"**, as in claim 26; **"using the coordinates of the at least two samples, determining if the communications signal encounters a threshold event, wherein the communications signal will fall below the minimum threshold"**, as in claim 27.

### *Conclusion*

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*Cicely Ware*

cqw  
January 12, 2006

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER